Dallas Fed

Energy Survey

First Quarter | June 29, 2016

Results from the first-quarter Dallas Fed Energy Survey report were released along with the second-quarter survey results. Data were collected March 16–24, and 167 energy firms responded to the survey. Of the respondents, 75 were E&P firms and 92 were O&G support services firms.

The Dallas Fed conducts the Dallas Fed Energy Survey quarterly to obtain a timely assessment of energy activity among oil and gas firms located or headquartered in the Eleventh District. Firms are asked whether business activity, employment, capital expenditures and other indicators increased, decreased or remained unchanged compared with the prior quarter and with the same quarter a year ago. Survey responses are used to calculate an index for each indicator. Each index is calculated by subtracting the percentage of respondents reporting a decrease from the percentage reporting an increase. When the share of firms reporting an increase exceeds the share reporting a decrease, the index will be greater than zero, suggesting the indicator has increased over the previous quarter. If the share of firms reporting a decrease exceeds the share reporting an increase, the index will be below zero, suggesting the indicator has decreased over the previous quarter.

Special Questions

Data were collected March 16–24, and 167 oil and gas firms responded to the special questions survey.

E&P Firms

In the top two areas in which your firm is active: What WTI oil price does your firm need to cover operating expenses for existing wells?

Individual responses varied rather widely, but average breakeven prices across regions fell in the fairly narrow range of $29-$43 per barrel. Only Eagle Ford, Permian Basin and Oklahoma had mean responses below the Department of Energy's first quarter weekly average WTI price of $33.37 per barrel. The average breakeven price needed to cover operating expenses for the entire sample was $34 per barrel. The lowest responses—in the Permian and Eagle Ford—were below $10 per barrel while the highest was $60 per barrel.

In the top two areas in which your firm is active: What WTI oil price does your firm need to profitably drill a new well?

Responses were markedly higher than those required to cover just operating expenses, with breakeven prices for new projects averaging $50-$62 per barrel depending on the region. Only three panelists reported they were able to drill new wells profitably at WTI prices below the first quarter weekly average of $33.37 per barrel. The average breakeven price for new projects for the entire sample was approximately $54 per barrel.

All Firms

How do you expect your number of employees to change in 2016?

Around 42 percent of firms expect no change in their employee count in 2016. Forty percent expect employment to decrease, and 18 percent expect it to increase. Comments from firms surveyed suggest some of those expecting increased headcounts will do so by expanding their companies through mergers and acquisitions.

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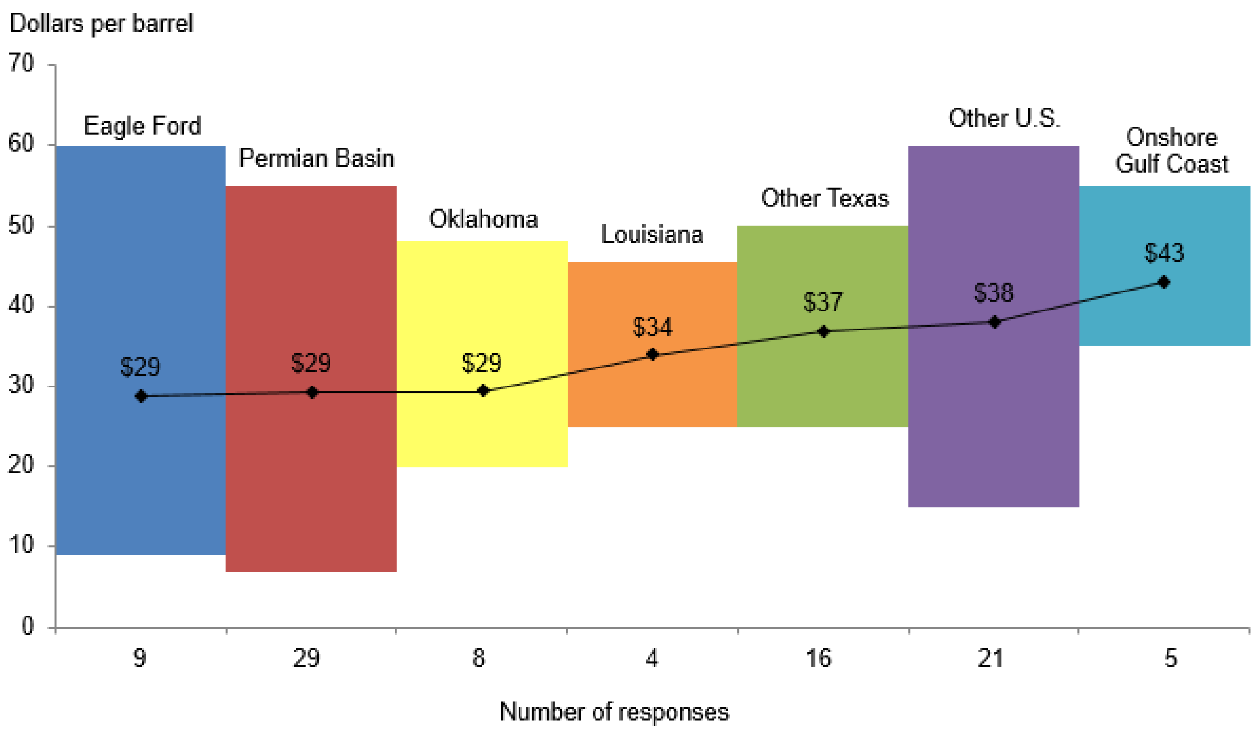

NOTES: Line depicts the mean and bars depict the range of responses. Sixty-nine exploration and production firms answered this question. Other U.S. includes Bakken, Kansas and Gulf of Mexico, among other responses.
SOURCE: Federal Reserve Bank of Dallas.

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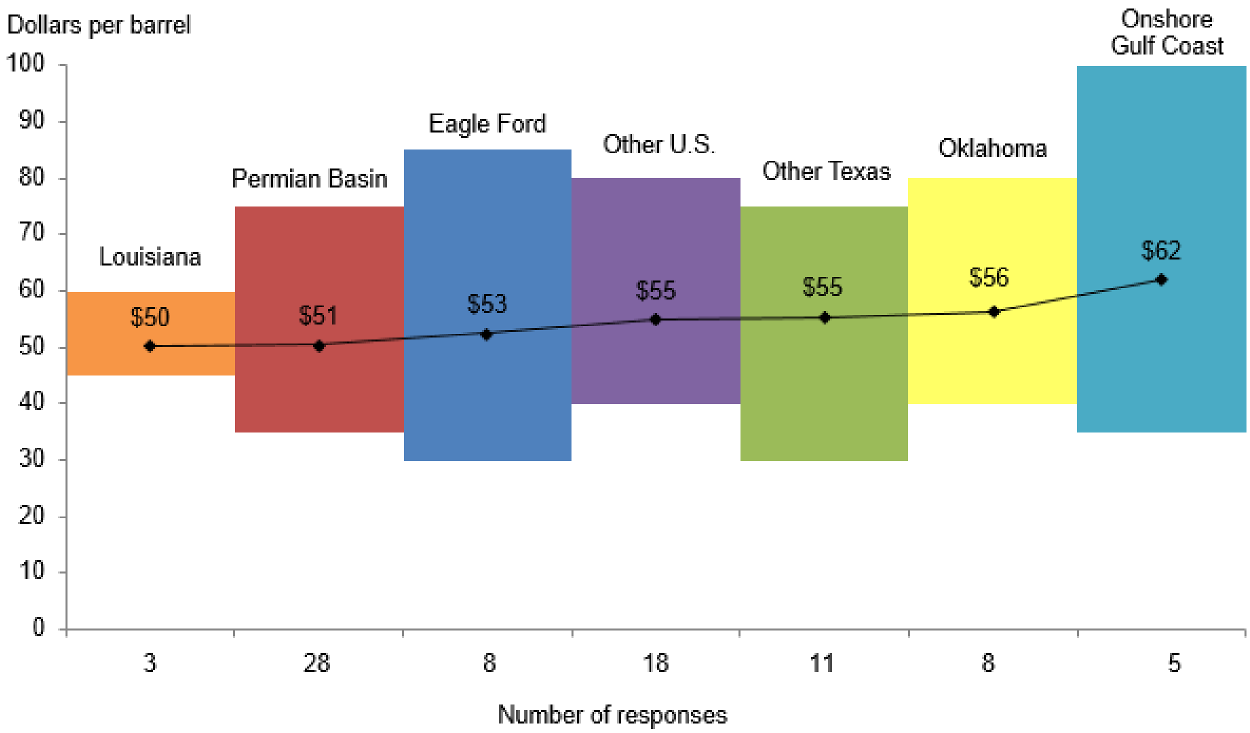

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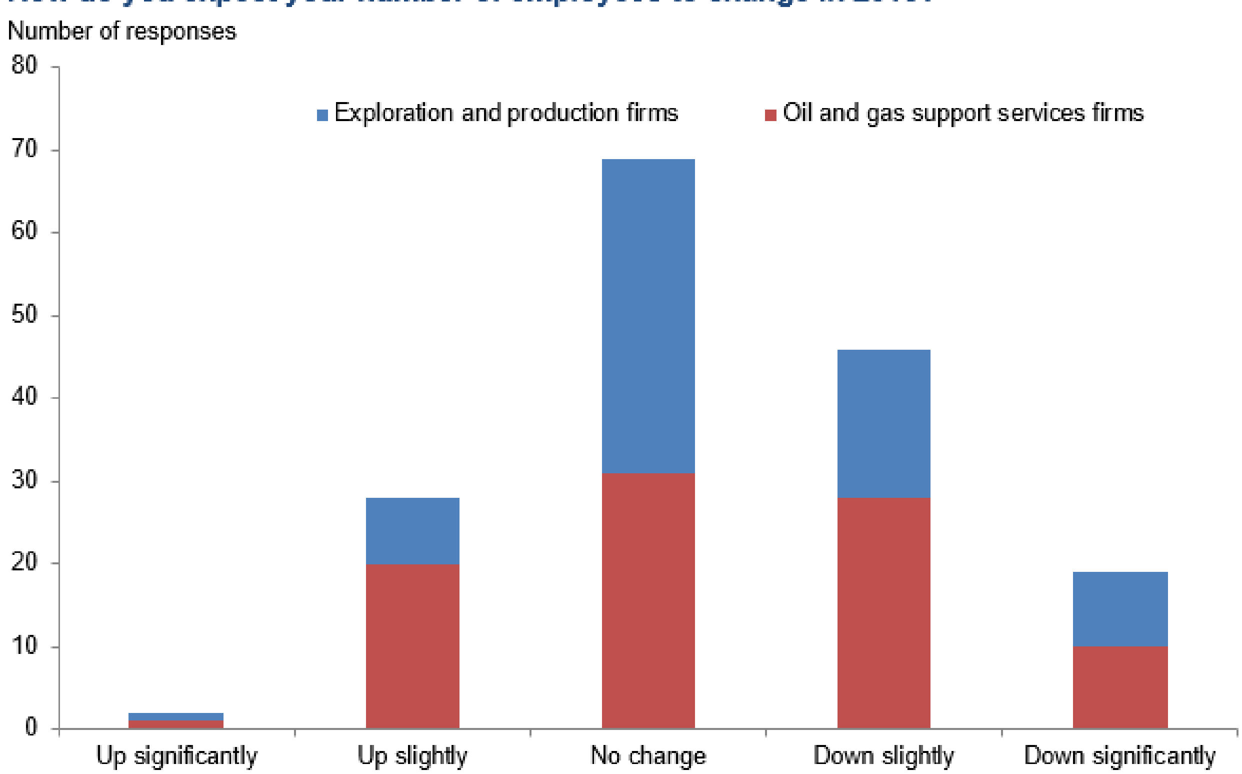

NOTE: Responses were from 74 exploration and production firms and 90 oil and gas support services firms.
SOURCE: Federal Reserve Bank of Dallas.

Business Indicators: Quarter/Quarter

Business Indicators: All Firms Current Quarter (versus previous quarter)					
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	-42.1	N/A	13.9	30.1	56.0
Capital Expenditures	-46.6	N/A	12.9	27.6	59.5
Supplier Delivery Time	-7.0	N/A	8.2	76.6	15.2
Employment	-38.0	N/A	9.0	44.0	47.0
Employee Hours	-26.8	N/A	11.6	50.0	38.4
Wages and Benefits	-26.0	N/A	7.3	59.4	33.3
Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-24.5	N/A	18.9	37.7	43.4

Business Indicators: E&P Firms Current Quarter (versus previous quarter)					
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	-38.7	N/A	12.0	37.3	50.7
Oil Production	-49.4	N/A	9.3	32.0	58.7
Natural Gas Wellhead Production	-47.8	N/A	9.9	32.4	57.7
Capital Expenditures	-53.4	N/A	8.2	30.1	61.6
Expected Level of Capital Expenditures in 2017	-14.6	N/A	26.7	32.0	41.3
Supplier Delivery Time	-8.5	N/A	5.6	80.3	14.1
Employment	-34.7	N/A	9.3	46.7	44.0
Employee Hours	-17.3	N/A	10.7	61.3	28.0
Wages and Benefits	-22.7	N/A	8.0	61.3	30.7
Finding and Development Costs	-50.0	N/A	4.1	41.9	54.1
Lease Operating Expenses	-48.7	N/A	2.7	45.9	51.4
Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-11.1	N/A	22.2	44.4	33.3

Business Indicators: O&G Support Services Firms Current Quarter (versus previous quarter)					
Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	-45.0	N/A	15.4	24.2	60.4
Utilization of Equipment	-52.9	N/A	8.0	31.0	60.9
Capital Expenditures	-41.1	N/A	16.7	25.6	57.8
Supplier Delivery Time	-5.8	N/A	10.3	73.6	16.1
Lag Time in Delivery of Firm’s Services	-7.2	N/A	3.6	85.5	10.8
Employment	-40.7	N/A	8.8	41.8	49.5
Employee Hours	-34.8	N/A	12.4	40.4	47.2
Wages and Benefits	-28.9	N/A	6.7	57.8	35.6
Input Costs	-30.7	N/A	5.7	58.0	36.4
Prices Received for Services	-58.3	N/A	1.2	39.3	59.5
Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-35.6	N/A	16.1	32.2	51.7

Price Expectations

Price Expectations: All Firms

Indicator	Current Index	Previous Index	% Reporting Higher	% Reporting Same	% Reporting Lower
Expected Oil Price a Year from Now	74.1	N/A	76.5	17.5	2.4
Expected Natural Gas Price a Year from Now	43.3	N/A	45.1	47.6	1.8

Price Expectations: E&P Firms

Indicator	Current Index	Previous Index	% Reporting Higher	% Reporting Same	% Reporting Lower
Expected Oil Price a Year from Now	74.3	N/A	78.4	14.9	4.1
Expected Natural Gas Price a Year from Now	48.6	N/A	51.4	44.4	2.8

Price Expectations: O&G Support Services Firms

Indicator	Current Index	Previous Index	% Reporting Higher	% Reporting Same	% Reporting Lower
Expected Oil Price a Year from Now	73.9	N/A	75.0	19.6	1.1
Expected Natural Gas Price a Year from Now	39.1	N/A	40.2	50.0	1.1

Business Indicators: Year/Year

Business Indicators: All Firms
Current Quarter (versus same quarter a year ago)

Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	-68.9	N/A	10.6	9.9	79.5
Capital Expenditures	-66.9	N/A	10.0	13.1	76.9
Supplier Delivery Time	-10.4	N/A	11.7	66.2	22.1
Employment	-51.2	N/A	9.3	30.2	60.5
Employee Hours	-41.5	N/A	10.7	37.1	52.2
Wages and Benefits	-34.4	N/A	9.4	46.9	43.8
Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-60.0	N/A	12.7	14.7	72.7

Business Indicators: E&P Firms
Current Quarter (versus same quarter a year ago)

Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	-67.1	N/A	9.6	13.7	76.7
Oil Production	-48.7	N/A	16.2	18.9	64.9
Natural Gas Wellhead Production	-37.1	N/A	20.0	22.9	57.1
Capital Expenditures	-64.4	N/A	12.3	11.0	76.7
Expected Level of Capital Expenditures in 2017	-32.9	N/A	21.9	23.3	54.8
Supplier Delivery Time	-14.5	N/A	10.1	65.2	24.6
Employment	-50.0	N/A	8.1	33.8	58.1
Employee Hours	-31.5	N/A	11.0	46.6	42.5
Wages and Benefits	-23.3	N/A	9.6	57.5	32.9
Finding and Development Costs	-67.2	N/A	6.8	19.2	74.0
Lease Operating Expenses	-62.2	N/A	8.1	21.6	70.3
Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-47.8	N/A	16.4	19.4	64.2

Business Indicators: O&G Support Services Firms
Current Quarter (versus same quarter a year ago)

Indicator	Current Index	Previous Index	% Reporting Increase	% Reporting No Change	% Reporting Decrease
Level of Business Activity	-70.4	N/A	11.4	6.8	81.8
Utilization of Equipment	-76.2	N/A	4.8	14.3	81.0
Capital Expenditures	-69.0	N/A	8.0	14.9	77.0
Supplier Delivery Time	-7.1	N/A	12.9	67.1	20.0
Lag Time in Delivery of Firm’s Services	-13.7	N/A	6.3	73.8	20.0
Employment	-52.3	N/A	10.2	27.3	62.5
Employee Hours	-50.0	N/A	10.5	29.1	60.5
Wages and Benefits	-43.7	N/A	9.2	37.9	52.9
Input Costs	-45.3	N/A	9.5	35.7	54.8
Prices Received for Services	-70.9	N/A	2.5	24.1	73.4
Indicator	Current Index	Previous Index	% Reporting Improved	% Reporting No Change	% Reporting Worsened
Company Outlook	-69.9	N/A	9.6	10.8	79.5

Comments from Survey Respondents

These comments are from respondents' completed surveys and have been edited for publication. Comments from the Special Questions survey can be found below.

Exploration and Production Firms

- As a private-equity-backed firm having a large capital commitment, we anticipate being very active in 2016 with respect to the acquisition of producing and nonproducing properties. In spite of looking at over 250 opportunities over the past 24 months, we did not transact due to the bid/ask spread. We anticipate that 2016 will be very active as hedges roll off, borrowing bases continue to contract and the number of bankruptcies increases.
- As an operator, our financial position remains strong despite the significant reduction in cash flow. This is largely due to having no outstanding debt. Thus we are seeking acquisitions, but valuations remain high or have a negative operating cash flow.
- Because the current markets are being controlled by men instead of markets, the market is not predictable by normal standards.
- Costs to drill and complete wells have declined, but the number of contractors has also declined. It is advantageous now to drill at reduced cost in order to produce in an escalating price environment.
- For the first time in 40 years in this business, I am losing money. With increased government interference and regulations, and low oil and gas prices, I do not know how much longer I will be in business.
- It is becoming much more difficult to explore and operate on federal lands due to multiple regulations and restrictions.
- Lower oil prices helped reduce supplier costs for drilling and exploration because if you wanted to stay in business you cut costs. We believe oil prices will recover in the long term but not above $75 per barrel. We continue to see private equity money driving drilling and exploration. As such we think supply in the Permian Basin will continue to increase through 2017. As oil prices rise so will supplier costs, which will eventually help to slow exploration somewhat.
- Lower service company prices for seismic acquisition and drilling are allowing our company to commit to new conventional exploration projects even at current commodity prices. We plan to increase exploration activity in 2016 in order to bring new production on stream in 2017 when we expect commodity prices to be higher than today.
- Project timing becomes more critical for us during this volatile pricing environment. Competition for increasingly scarce services when price opportunities do occur will likely limit our ability to optimally react and result in increased cost.
- Service costs (drilling in particular) have really come down year over year.
- Survive to thrive.
- Technology giveth and technology taketh away. …
- The emotional nature of the market pricing process for crude will produce considerable volatility in 2016 until the market is convinced that the pricing process has built a bottom foundation. That may be a challenge considering the negative emotional inference of the market to a one-well increase in the latest rig count.
- The industry is in a reset mode. We saw this in the 80s, but this time it is worse due to leverage issues in both service-side buildouts and operator overreach. Shale drove both mad with excitement.
- The Obama administration's crackdown on hydrocarbon lending by commercial banks is creating an environment wherein the least expensive traditional source of financing is being eliminated for a large number of independent oil and gas producers.
- The regulator of oil and gas activity in the Gulf of Mexico has come out with very prescriptive rules for drilling activity in the name of safety. The rules are not well thought out. They are going to drive up our cost and actually make things less safe. This is a knee jerk reaction to the Macondo incident but is not at all related to what caused Macondo.
- The strong U.S. dollar and global production increases exceeding demand growth are challenging oil and gas commodity prices. The lower cash flow has caused us to significantly reduce capital expenditures and essentially all capital expenditures for exploration for new hydrocarbon reserves and recovery of existing hydrocarbon reserves.
- The upcoming bank redeterminations will have a profound impact on our industry. This is especially true as a result of some operators drawing down their borrowing base completely before announcing restructuring efforts.
- We are a private-equity-backed company. Our company has staffed up ahead of a significant acquisition push we're making, trying to buy producing properties in this depressed commodity cycle.
- We have a real concern that when prices improve service companies will be physically unable to perform increased work due to massive layoffs, business closures and equipment cannibalization.

- We see oil prices for 2016 to be in a $25-$40 per barrel range. In 2017 we see the range for West Texas Intermediate as $35-$50 per barrel.

Oil and Gas Support Services Firms

- Although we anticipate prices to end the year substantially higher than where we started the year, we do anticipate the rally stalling for a period of time in 2017, so we expect a prolonged period of lower costs and constrained capital budgets.
- As with most companies, we are optimistic about the future price of oil. Gas—we anticipate some change, but very little movement due to supply. We are reviewing a number of potential transactions, but base our decisions on current pricing. However, the cost of equipment has resulted in a favorable improvement of our margins.
- Continued low oil prices have caused me to discontinue or postpone all drilling activity. At current prices even my older wells do not break even due to increased costs, particularly those related to regulatory compliance.
- I'm seeing large "waves" of experienced employees (grey hair) being pushed out of the industry, probably never to return. A real brain-drain is developing. Incoming millennials have across-the-board poor work ethic, are extremely self-centered, and by and large disrespectful of their seniors in the industry. Banks are stiff-arming any new banking relationships with the industry. I am also noticing an uptick in regulatory activity at the Federal and state level, even from agencies we had never heard of before, in every state in which we have business activities. Partners and usual associates are closing their wallets.
- We are interested to see how this downturn will affect individual's desires to return (i.e., field and corporate personnel who have left the business due to the cyclicality in exchange for something more stable) and how service company efficiency performs (e.g., have the marginal workers been culled out leaving only the best or not).
- The key word in all of our businesses is uncertainty, not only in the price of oil and natural gas but also the overall stability of the markets.
- We expect an oil price in the $40 or maybe $50 dollar per barrel range. We expect a gas price of $2.25 by year end.
- Oil will have to be $40 to $42 per barrel and gas will have to be $2 per million cubic feet to sustain continuing operations.
- Our biggest issue is that the major customers in our industry are skittish and low on capital. That affects our business, of course. However, even though they need our products and our products can dramatically lower their costs and improve their operations, they are hesitant to purchase, given the U.S. and global economic outlook. We face sort of an overall paralysis.
- Our capital is waiting on the sidelines for a bargain basement troubled acquisition.
- Our geophysical consulting business for oil and gas exploration stopped at the end of second quarter 2015. We are developing additional lines of business, but they are not generating income, yet. Revenue from producing properties in 2015 is one third of the prior year, and expenses have remained flat.
- Public company operators charging nonoperator, higher rates above-and-beyond the base "overhead rate" are trying to squeeze every penny out of anyone else that they can. Public companies continue to report inflated reserves and keep drilling wells with bogus economics.
- Reduce the product tax burden.
- The regulatory environment has amplified levels of distress, e.g., vis-a-vis offshore supplemental bonding requirements, permitting requirements/responsiveness, etc.
- Seemingly all exploration activities in the U.S. have ceased. With the rig count down so dramatically, and with our customer base cutting capital expenditures and laying down additional rigs every month, it is little surprise that spending on seismic data is down (down well over 70 percent from 2014 levels). Our business is also tied to mergers and acquisitions, assets sales and partner deals, all of which lead to additional data sales. This market cycle seems different than previous periods of adjustment in that there is little in terms of ”turnover”—very few deals. There is much pain being felt in the exploration and production service sector, and I suspect that if this downturn continues two more quarters many of the U.S. providers will be forced to restructure or simply fold up shop.
- My specific company outlook is poor, but I am generally bullish about the industry as prices seem to have turned a corner.
- Suppliers are struggling to keep employees and are pricing to direct cost, in some cases excluding depreciation (i.e., marginal cash costs only). Competitors in our service niche dropped prices uniformly in the past two months. We believe average rates are now 33 percent below what they were at the end of 2014, though at least we have a positive gross margin. Producers (our customers) are all looking for price cuts in every part of their business, and many of our contacts are worried about layoffs. Interestingly, most recognize that current costs are not sustainable and that service costs must go up to sustain vendors. In terms of labor, we operate in North Dakota and believe many skilled laborers are leaving the state and the industry. We expect tightness to occur much more quickly than many expect.

- The basics of supply and demand have not changed enough to affect the price of oil. There is no substantive reason for the recent increase in oil prices. One of the biggest obstacles in oil pricing is oil in storage, which is at an all-time high. That is not likely to change, in fact these storage numbers may increase. We have not seen the bottom for the oil and gas industry yet, and probably will not until next year when most of the hedges run out. Some companies are hedged through 2017! Unhedged low prices will cause bankruptcies, mergers and acquisitions. Some stability should follow that bottom.
- The commodity price market has collapsed. This is not new news to anyone in our industry. We view the current price conditions as a replay of 1986: very depressed prices, oversupply, more bankruptcies to come and depressed capital and operational expenditures spending for a significant period of time. Many of our competitors have gone bankrupt. The market is clearing excesses that may have existed one and a half years ago.
- The further decline in oil price in first quarter 2016 negatively impacted our business during that quarter and is expected to continue into/through second quarter 2016. We expect second quarter activity to be worse than first quarter and expect a rebound in our business to begin in the second half of 2016.
- The overall market has slowed, but we are adding sales personnel in preparation for future growth and to explore other markets outside of oil/gas construction work.
- We are working very hard for every single order and have to expand our basket of goods to attract new clients and maintain existing business.
- We have experienced growth in our gas lift sector; our low pressure boosters have suffered with low oil prices. We are expecting that to turn around as prices climb back to a normal price. We have expanded into new locations and expect that to increase this year. Our core business is strong and continues to grow in the sectors that need our rental units.
- We have no debt so that should enable us to make it through the down cycle.
- We should be using natural gas in vehicles more than gasoline or fuel oils.
- We think oil prices have bottomed, but the U.S. rig count is at a historical low and the impact on production will be fully realized three to four months from now. If oil prices move above $50 for two to three months, we should see a modest rise in drilling.

Special Questions Comments

Exploration and Production Firms

- We will drill, or participate, to hold acreage only. As for employment, there will be no consideration to add until West Texas Intermediate is well into the $40s per barrel unless there is an acquisition. However, this would net an overall reduction in employment.
- Without a significant uptick in prices, I will not be drilling anything this year.
- We anticipate an increase in employees at the field level as we make acquisitions. We do not anticipate a material change with respect to staff and technical personnel.
- Natural gas and natural gas liquid prices are also a significant factor when considering prices to cover operating expenses and/or drilling a new well.
- Perception is 99 percent of reality. Now money chases recent past numbers as to the value of oil and natural gas when it comes to drilling. Capital markets are done until they recapture losses. Now capital is seeking zombies that lived on high prices. Lots of those will be bought at significant discounts.
- We expect no change in company employees, but we will run less contract services.
- The cost to drill new wells has come down substantially. However, as oil prices rebound so will the cost of drilling. As such, profitability to drill a new well is somewhat fluid. Also, with improved drilling and completion techniques some companies are drilling to increase production and therefore revenue—at any price. The only thing changing is the payback time to recover the drilling costs. That is why we believe production will continue to increase in the Permian Basin.
- Thirty dollar per barrel is our breakeven oil price for a new conventional project along the Texas Gulf Coast. We make a good rate of return at any price higher than $35 per barrel, and we are expecting prices to average higher than this in the second half of 2016 and beyond.

Oil and Gas Support Services Firms

- We have already reduced our headcount around 35 percent, and we are still dramatically overstaffed for the level of activity we see today.
- We don't see an uptick in employee count and hope to be able to maintain people we currently have.
- We have been forced to downsize with the dropping rig count. We have had a reduction-in-force each of the past three months.
- As drilling activity increases, we will need to hire rig-based personnel.
- We have no business so far this year and have closed one of two offices. We have no income this year at all so far. Our clients are facing bankruptcy while owing us four months of invoices.
- Significant staffing reductions were implemented in the first quarter.
- We anticipate increasing our asset utilization as oil prices increase and the demand for our services improves. Our subsequent employee count should increase.
- Part of our business is bid work. Oil and gas infrastructure (pipelines for the most part) are still being built. The number of people employed will be highly dependent on the number and timing of bids that we are awarded.
- Our employment plans are predicated on an ability to preserve liquidity, including effectuating consensual solutions with lenders.
- If the industry continues this low, there are two markets: the drillers waiting for oil to go up in value and gas which is in South Texas. We had to change hard hats, and now we are concentrating on field salt water from gas wells. This is how my company has been surviving. The pay is low, but it pays the bills (disposal) and my employees.
- We are adding sales personnel.
- The company did a small layoff in February. Hopefully, that will be all that is needed.
- We must expand our offerings to maintain revenue targets. In addition, the business we do take is at much lower margins.
- We did a small reduction in force in the first quarter, and we are down 20 percent on our employee count from 2014.
- With planned acquisitions, we will plan on increasing staff.
- Payroll had to be suspended for an indefinite period pending a return to profitability. Hopes of outsourcing some work were dashed by the oil and gas products price collapse. Hopefully some part-time outsourcing can occur in fiscal year 2017. Current goals are to hunker down, pay down drawn lines of credit and maintain enough liquidity to keep up with required capital expenditures as they arise. Although we have no control over them, at least our operating companies have pretty much stopped drilling, except for one company in the Permian Basin that will drop to only drilling one well every 120 days to meet the lease terms.

Questions regarding the Dallas Fed Energy Survey can be addressed to Michael Plante at Michael.Plante@dal.frb.org. The Dallas Fed Energy Survey can be found online at www.dallasfed.org/microsites/research/surveys/des/.